

Re: Fw: Animas Updated charts and powerpoint, plus ARR/Quickscore info

Katharine Lima to: Forrest.Sabrina

06/13/2011 08:26 AM

From: Katharine Lima <kncj@sbcglobal.net>

To:

Cc: Myers.Robert@epamail.epa.gov

I'll give it my best - although I'm not sure I understand the question. He says:

"I would like to ask CSC about which benchmarks would be best for stream sediment and stream water with our wetlands targets and then how that is handled if it is combined with a fisherman target ."

For stream sediment, there are no benchmarks. For stream water, the HRS says to use chronic benchmark, if available; if not, use acute. But as you pointed out already, it would be much more direct to go with Level II scoring, as long as the Haz. Waste Quantity is 10,000. This is because most of the metals benchmarks are hardness-dependant, and the values provided in SCDM are based on hardness of 100 mg/L. So the benchmark values would have to be converted using the sample's specific hardness value, as analyzed, before a comparison could be made. The equations and variables for some metals (cadmium is one) are provided in the Benchmarks appendix of SCDM.

So, using cadmium's Ecotoxicity/Persistence/Bioaccumulation value plus a HWQ value of 10,000, and Level II wetland greater than 0.1 mile in length, this would yield a pathway score of 100.00. Then the Human Food Chain threat could be scored using a HFC individual value of 20.

I hope this helps. Please let me know if more detail is needed.

Katharine Lima

Environmental Scientist

CSC

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Science, Engineering and Mission Support

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--- On **Fri, 6/10/11**, **Forrest.Sabrina@epamail.epa.gov** <**Forrest.Sabrina@epamail.epa.gov**> wrote:

From: Forrest.Sabrina@epamail.epa.gov <Forrest.Sabrina@epamail.epa.gov>
Subject: Fw: Animas Updated charts and powerpoint, plus ARR/Quickscore info
To: kncj@sbcglobal.net
Cc: Myers.Robert@epamail.epa.gov
Date: Friday, June 10, 2011, 4:16 PM

Can you help us with the question Barry asked below?

Sincerely,

Sabrina Forrest
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----- Forwarded by Sabrina Forrest/R8/USEPA/US on 06/10/2011 03:15 PM

From: Barry_Hayhurst@URSCorp.com

To: Sabrina Forrest/R8/USEPA/US@EPA
Date: 06/10/2011 03:11 PM
Subject: Re: Animas Updated charts and powerpoint, plus
ARR/Quickscore info

Thanks. This gives me permission to work on the project rather than wait for a pending TDD. It should make things easier over here.

I have re-calculated the surface water results using the SCDM acute and chronic benchmarks and Cadmium with a fresh water toxicity of 10,000 and a river persistence of 1 (the same as arsenic in drinking water) looks like it will be the star performer with continuous elevated (3X > benchmark) down to UASW049 (Upstream of Fairview Gulch and Elk Tunnel Discharge).

I will get on re-calculating a new Quickscore.

The sediment tables used the only mg/kg benchmarks for metals so they cannot change. I would like to ask CSC about which benchmarks would be best for stream sediment and stream water with our wetlands targets and then how that is handled if it is combined with a fisherman target .

I'm going to start making up a list of questions for your next call with CSC.

Thanks for the heads up.

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Forrest.Sabrina
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To

Megan_Adamczyk@URSCorp.com,
06/10/2011 Barry_Hayhurst@urscorp.com

02:38 PM cc

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Subject

Re: Animas Updated charts and powerpoint, plus
ARR/Quickscore info

Megan/Barry, I know you have a lot of comments to sift through, but please don't hesitate to call or email. I am not going to Silverton next week to discuss our results with the ARSG and community, but must do it next month and need time, as before, to discuss our Quickscore(s) strengths/weaknesses, likely strategy with management, and build a presentation to share with others for input by early July. I do plan to get the HRS package TDD going, but want our strategy and revised Quickscore(s) done under this existing TDD. If TDD needs a mod, let's talk ASAP, or send me some info via email to begin the mod rationale process.

I just had a technical assistance call with CSC. We can all have a call with them if you want. If my comments below are unclear, we should schedule a call with them.

Highlights that I took away that should help revise your Quickscore (plus scenarios) and ARR include:

General Considerations - I imagine I will need more HQ input on Site Definition, but...

Consider scenario that include scoring sources all along Cement Creek, since likely can show that releases are from similar ore bodies.

Consider scenario that includes "Other possible sources" along Cement Creek, acknowledging other parties or agencies are addressing them.

Confirm that the waste piles' volumes gives Waste Quantity 10,000 - don't have volume for Gold King 7 level, but is >0.

Recommend using Level II for surface water pathway, Envir. threat (wetlands) calculation so that don't need to mess with the hardness based metals' conversion factors needed for proper Level I comparison.

Document fishing/consumption within zone of contamination; reflect in all Quickscore scenarios.

Observed Release by Direct Observation based on adverse effects - (Note for START/UOS - Can get this in fishery zone of contamination if the Division of Wildlife and B.U.G.S contact will state in Records of Communication that the reduction in numbers of trout species and macro-invertebrates is due to releases from Cement Creek sources.

<http://www.bugsconsulting.com/LinkClick.aspx?fileticket=Hs1niJZSrK0=&tabid=314>

)

Consider what the groundwater contributions of metals are. (USGS Prof Paper 1651 might help with this and other background questions related to minerology/geochemistry and water quality).

Be aware of areas where mine discharges only flow a small percentage of

time.

ARR states that fine-grained sediments were visible in sediments. (Note for START/UOS - Needs better substantiated; were pix taken? Other ideas to support statement?)

ARR surface water pathway needs to discuss that the Animas River upstream of Cement Creek is not contributing CD or Zn. (Keep in mind the possibility of storm water from town being a source of metals - this needs more study).

Remove statements in ARR about previous data being unusable, since it still could be secondary data to support other statements.

Background Samples for SW pathway:

Should always have more than one, especially in highly mineralized areas. Ideally collect from same SW regime, but from unmined areas.

Consider alternative backgrounds to USSW/SE030 , e.g., take a look at UASW/SE005, UASW/SE012, UASW/SE003, and UASW/SE033. But remember to take into account the need to have similar stream sizes, types, and mineralogy/geochemistry. (Question for CSC: Does that mean we should have multiple backgrounds to track changes in stream sizes as we move downstream? For example USSW012 is a trickle at times, but may well represent the upper Cement Creek drainages. It is a poor comparison for the downstream Cement Creek locations, which may better be represented by UASW003 or UASW/SE033.

Sampling Considerations

State clearly in ARR that source samples' locations from mines' adits are from where comes out of ground, so not confused with overland flow sample or surface water samples.

Wetlands Considerations - Needs to be documented and defensible information

Clearly identify in tables/figures/text, which sample locations are associated with wetlands.

Document the wetland type and its HRS eligibility criteria.

Confirm dates of wetlands delineation referenced.

(Note for START/UOS - May need an updated/validated delineation to confirm wetland type(s). Be sure to make sure wetlands meet HRS eligibility criteria. Need to look for additional info on T&E species. Check Rod Chimner's info on the Sphagnum moss spp. and locations in the watershed - may be in ferricrete area downgradient of Red & Bonita; as well as in other areas on Cement Creek, but also may be more associated with hillside seeps. See if START followed up call to USACE in Durango - Kara Hellige).

I think that the USGS Prof Paper 1651 has a ton of info in these 2 volumes; some of which I imagine could help with an HRS package. I did get some DOW data from the electro-fishing; need to get that to you all.

Have a great weekend - let's talk soon.

Sincerely,

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From: Megan_Adamczyk@URSCorp.com
To: Sabrina Forrest/R8/USEPA/US@EPA
Date: 06/10/2011 09:30 AM
Subject: Re: Animas Updated charts and powerpoint

Sabrina,
I can work with the comments in hard copy.
I will be in the office all week next week, so having the revisions incorporated by the week of the 20th should not be a problem.

Regards,
Megan J. Adamczyk
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Forrest.Sabrina@epamail.epa.gov

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To

06/09/2011 01:17 PM Megan_Adamczyk@URSCorp.com

cc

Subject

Re: Animas Updated charts
and powerpoint

Megan, Sandy Spence, one of our TMDL folks has gone over some of the data in more detail than I and said that it was looking pretty good. That being said, she was focusing on the 2009 data that Schroeder had put together, so all the 2010 data may need more checking. I would appreciate it if you could double check some areas and see if just pulling out the duplicate locations makes it all better.

Additionally, I have been reviewing the dft ARR and mostly have comments written on the hardcopy. Will that work for you, or do you want the comments summarized in a document? I would like to get those to you ASAP so that you can begin working on revising the Quickscore,(ASAP), then the tables, figures, and narrative. I would like to have that revised Quickscore and ARR by the week of June 20.

Sincerely,

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From: Megan_Adamczyk@URSCorp.com
To: Sabrina Forrest/R8/USEPA/US@EPA
Date: 06/09/2011 12:47 PM
Subject: Re: Animas Updated charts and powerpoint

Sabrina,

I anticipate having time to check over this tomorrow or Monday. I will get back to you early next week with any revisions.

Regards,
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To
06/07/2011 07:12 PM Megan_Adamczyk@URSCorp.com
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Barry_Hayhurst@urscorp.com,
rebecca_laramie@urscorp.com
Subject
Re: Animas Updated charts and powerpoint

Hi Megan Thanks again for sending the files over. Could you double check the data that you pulled into the charts? I was going over the Zinc charts and the loading ones have some dates duplicated so it looks as though there are more months there than should be. Also it did not appear that the monthly loads tracked at A72 with the addition of the Cement, Mineral, and Animas loads, but rather it looks like some huge Zn load is coming in below Cement. The early charts from Bill did not appear to do that, so I think some data checking would be wise. Let me know what your turn around will be to review what was generated. As typical, I would like to know ASAP if the data need regenerated. Please call if you have questions.

Sincerely,

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From: Megan_Adamczyk@URSCorp.com
To: Sabrina Forrest/R8/USEPA/US@EPA
Date: 06/02/2011 08:30 PM
Subject: Animas Updated charts and powerpoint

Sabrina,

I have attached the excel sheet with the lines added in for the Reg 34 Values and a powerpoint with the charts as slides.

Let me know if you have any questions or further needs.

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[attachment "Upper Animas Charts.pptx" deleted by Sabrina
Forrest/R8/USEPA/US] [attachment "Animas 2009-2010 with standards.xlsx"
deleted by Sabrina Forrest/R8/USEPA/US]